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USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2009

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The ALL, BIB, MAX, and STD display formats in the CA/CAplus family of databases have been updated to include new citing references information. This enhancement may impact record import into database management software. For additional information, refer to NEWS 9.

| => | e dicyanoamide | |
|-----|----------------|--------------------------------------|
| E1 | 1 | DICYANOALLYLSILOXANE/BI |
| E2 | 1 | DICYANOAMIDAZIDE/BI |
| EЗ | 39> | DICYANOAMIDE/BI |
| E4 | 2 | DICYANOAMIDES/BI |
| E5 | 7 | DICYANOAMIDINE/BI |
| E6 | 1 | DICYANOAMIDINES/BI |
| E7 | 1 | DICYANOAMIDINO/BI |
| E8 | 10 | DICYANOAMIDO/BI |
| E9 | 2 | DICYANOAMIDOCUPRATE/BI |
| E10 | 4 | DICYANOAMIDOGEN/BI |
| E11 | 30 | DICYANOAMIDOGENCUPRATE/BI |
| E12 | 1 | DICYANOAMIDOGENCUPRATEMONOBROMIDE/BI |
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2 DICYANOAMIDES/BI 40 DICYANOAMIDE/BI T.1 ((DICYANOAMIDE OR DICYANOAMIDES)/BI) => s l1 and electrolyte 292736 ELECTROLYTE 150498 ELECTROLYTES 349561 ELECTROLYTE (ELECTROLYTE OR ELECTROLYTES) L2 3 L1 AND ELECTROLYTE \Rightarrow d 12 ibib abs 1-3 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2008:777359 CAPLUS DOCUMENT NUMBER: 149:249241 TITLE: Tetrahydrothiophenium-Based Ionic Liquids for High Efficiency Dye-Sensitized Solar Cells Xi, Chengcheng; Cao, Yiming; Cheng, Yueming; Wang, AUTHOR(S): Mingkui; Jing, Xiaoyan; Zakeeruddin, Shaik M.; Gratzel, Michael; Wang, Peng State Key Laboratory of Polymer Physics and Chemistry, CORPORATE SOURCE: Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun, 130022, Peop. Rep. China SOURCE: Journal of Physical Chemistry C (2008), 112(29), 11063-11067 CODEN: JPCCCK; ISSN: 1932-7447 PUBLISHER: American Chemical Society Journal DOCUMENT TYPE: LANGUAGE: English Binary melts of S-ethyltetrahydrothiophenium iodide and dicyanoamide (or tricyanomethide) have been employed for dye-sensitized solar cells with high power conversion efficiencies up to 6.9% under the illumination of air-mass 1.5G full sunlight. We have further shown that the transport of triiodide in ionic liqs. with high iodide concentration is viscosity-dependent in terms of a phys. diffusion coupled bond exchange mechanism apart from the simple phys. diffusion. we have found that some anions of ionic liquid electrolytes such as dicyanoamide have a significant influence on surface states and electron transport in the mesoporous semiconducting film. OS.CITING REF COUNT: THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD

(4 CITINGS)

REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:602639 CAPLUS

DOCUMENT NUMBER: 145:75195

TITLE: Aluminum electrolytic capacitors provided with electrolytic solution containing dicyanoamides

and nitro compounds

INVENTOR(S): Matsuda, Akihiro; Ogami, Seitaro; Tani, Tomoyuki; Ito,

Tomonori

PATENT ASSIGNEE(S): Nichicon Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE

JP 2006165001 A 20060622 JP 2004-349327 20041202

JP 2004-349327 20041202 KIND DATE APPLICATION NO. DATE PATENT NO. PRIORITY APPLN. INFO.:

OTHER SOURCE(S): MARPAT 145:75195

The electrolyte solution provided for the title electrolytic capacitors contains dicyanoamide $R+\bullet-N(C.tplbond.N)$ 2 (R+=cation) and ≥ 1 nitro compds. The electrolyte solution gives the capacitors low impedance, low equivalent-series resistance, high-temperature

durability, and withstand-voltage stability.

ANSWER 3 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:239320 CAPLUS

DOCUMENT NUMBER: 142:319814

TITLE: Electrolyte composition and photoelectric

converter using the composition

INVENTOR(S): Watanabe, Masayoshi; Kawano, Ryuji; Matsuyama,

Chizuru; Matsui, Hiroshi; Tanabe, Nobuo

Fujikura Ltd., Japan PCT Int. Appl., 17 pp. PATENT ASSIGNEE(S): SOURCE:

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PA' | PATENT NO. | | | KIND DATE | | | APPLICATION NO. | | | | | | DATE | | | | |
|------|------------|------|--------|-----------|-----|-----|-----------------|------|-----|----|--------|----------|---------|-----|--------------|------|-----|
| WO | 2005 | 0249 |
92 | | A1 | _ | 2005 | 0317 | | WO | 2004- |
JP13 |
253 | | 2 | 0040 | 906 |
| | W: | ΑE, | AG, | AL, | AM, | ΑT, | ΑU, | ΑZ, | BA, | BB | B, BG, | BR, | BW, | BY, | BZ, | CA, | CH, |
| | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ | EC, | EE, | EG, | ES, | FI, | GB, | GD, |
| | | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS | KE, | KG, | KP, | KR, | KΖ, | LC, | LK, |
| | | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK | MN, | MW, | MX, | MZ, | NA, | ΝI, | NO, |
| | | NΖ, | OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC | S, SD, | SE, | SG, | SK, | SL, | SY, | ТJ, |
| | | TM, | TN, | TR, | TT, | TZ, | UA, | UG, | US, | UZ | C, VC, | VN, | YU, | ZA, | ZM, | ZW | |
| | RW: | BW, | GH, | GM, | KΕ, | LS, | MW, | MZ, | NA, | SD |), SL, | SZ, | TZ, | UG, | ZM, | ZW, | ΑM, |
| | | ΑZ, | BY, | KG, | KΖ, | MD, | RU, | ΤJ, | TM, | ΑT | BE, | BG, | CH, | CY, | CZ, | DE, | DK, |
| | | | | | | | | | | | LU, | | | | | | |
| | | | | | | ВJ, | CF, | CG, | CI, | CM | I, GA, | GN, | GQ, | GW, | $	ext{ML}$, | MR, | ΝE, |
| | | | TD, | | | | | | | | | | | | | | |
| | 2005 | | | | | | 2005 | | | - | 2003- | | | | | 0030 | |
| TW | 2854 | 37 | | | В | | 2007 | | | | 2004- | | | | | 0040 | |
| | 2004 | | | | | | 2005 | | | AU | 2004- | 3030 | 35 | | 2 | 0040 | 906 |
| | 2004 | | | | В2 | | 2008 | | | | | | | | | | |
| | 2538 | | | | | | 2005 | | | | 2004- | | | | | 0040 | |
| EP | 1675 | | | | | | 2006 | | | EΡ | 2004- | 7729 | 35 | | 2 | 0040 | 906 |
| | | | | | | | SE, | | | | | | | | | | |
| | 1846 | | | | Α | | 2006 | - | | | 2004- | | | | | 0040 | |
| | 2006 | | | | | | 2006 | | | KR | 2006- | 7042 | 45 | | 2 | 0060 | 228 |
| | 7670 | | | | | | 2007 | | | | | | | | _ | | |
| | 2008 | | | | A1 | | 2008 | 0313 | | | 2007- | | | | | | |
| ORIT | Y APP | LN. | INFO | .: | | | | | | | 2003- | | | | | | |
| | | | | | | | | | | | 2004- | | | | | | |

The composition contains an ionic liquid, having a dicyanoamide anion as an anion. The converter uses the above composition as an electrolyte. Preferably, the ionic liquid contains a quaternarized N atom as a cation.

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS

=> s l1 ibib abs 1-40
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L1 ANSWER 1 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:643376 CAPLUS

DOCUMENT NUMBER: 151:101218

TITLE: Synthesis, Structure, and Bonding of Weakly

Coordinating Anions Based on CN Adducts

AUTHOR(S): Bernsdorf, Arne; Brand, Harald; Hellmann, Robert;

Koeckerling, Martin; Schulz, Axel; Villinger,

Alexander; Voss, Karsten

CORPORATE SOURCE: Abteilung Anorganische Chemie, Institut fuer Chemie,

Universitaet Rostock, Rostock, 18059, Germany

SOURCE: Journal of the American Chemical Society (2009),

131(25), 8958-8970

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 151:101218

AB The addition of alkali or silver salts of dicyanoamide (dca),

tricyanomethanide (tcm) and tetracyanoborate (tcb) to a solution of B(C6F5)3 in di-Et ether affords salts containing very voluminous B(C6F5)3 adduct anions

of the type $[E(CN)n-] \cdot [B(C6F5)3]n$: E=N (dca_nb with n=1, 2; b = B(C6F5)3); E=C (tcm_nb with n=1, 2, 3), and E=B (tcb_nb with n=1)

1, 2, 3, 4). Salts bearing these anions such as $B[(CN) \cdot B(C6F5) 3] 4 - (= [B(CN) 4 -] \cdot [B(C6F5) 3] 4)$, $C[(CN) \cdot B(C6F5) 3] 3 - (= [C(CN) 3 -] \cdot [B(C6F5) 3] 3)$, and $N[(CN) \cdot B(C6F5) 3] 2 - (=$

 $[N(CN)2-] \cdot [B(C6F5)3]2)$ can be prepared in good yields. They are

thermally stable up to over 200° and dissolve in polar organic

solvents. Depending on the stoichiometry mono-, di-, tri-, or tetraadduct formation is observed The solid state structures of dca_2b, tcm_3b and

tcb_4b salts show only long cation...anion contacts

and thereby weak interactions, large anion vols. and only small

distortions of the dca, tcm or tcb core enwrapped between B(C6F5)3 groups. That is why these anions can be regarded as weakly coordinating anions. On the basis of B3LYP/6-31+G(d) computations the energetics, structural tronds and charge transfer of the adduct anion formation were studied.

trends and charge transfer of the adduct anion formation were studied. Since tcm_3b and tcb_4b are easily accessible and can also be prepared in large quantities, these anions may be utilized as a true alternative to other widely used weakly coordinating anions. Moreover, for both steric and electronic reasons it seems reasonable to expect that as counterions for cationic early transition metal catalysts such anions may show reduced

ion pairing and hence increased catalytic activity. REFERENCE COUNT: 93 THERE ARE 93 CITED REFERE

THERE ARE 93 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:303044 CAPLUS

TITLE: Dicyanoamide: Its role in energetic ionic

liquids

AUTHOR(S): Carlin, Caleb M.; Gordon, Mark S.

CORPORATE SOURCE: Department of Physics, Michigan Technological

University, Houghton, MI, 49931, USA

SOURCE: Abstracts of Papers, 237th ACS National Meeting, Salt

Lake City, UT, United States, March 22-26, 2009 (2009), CHED-946. American Chemical Society: Washington, D.

C.

CODEN: 69LNK5

DOCUMENT TYPE: Conference; Meeting Abstract; (computer optical disk)

LANGUAGE: English

AB Energetic ionic liqs. have drawn increasing interest as candidates for monopropellants with aerospace applications as their relative stability and high energy d. surpass current fuels. The energetic ionic liquid 1,2,4-triazolium dicyanoamide [TZ+/DCA-] is investigated at the second order perturbation (MP2) level of quantum chemical to determine the relative energies of the ion pair (TZ+/DCA-) and the neutral pair (TZ/HDCA), in which a proton has transferred from the cation to the anion. All of these calcns. were completed using the 6-31++G(d,p) basis set implemented in the GAMESS software package. The ionization potential of DCA- is determined using the equation-of-motion ionization potential coupled cluster (EOM-IP-CC) method in Qchem and the completely renormalized coupled cluster with single, double, and triple excitations (CR-CC(2,3)) method in GAMESS, both with the aug-cc-pVTZ basis set.

L1 ANSWER 3 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:1026888 CAPLUS

DOCUMENT NUMBER: 149:316766

TITLE: Pyrrolidinium-Based Ionic Liquids. 1-Butyl-1-methyl

Pyrrolidinium Dicyanoamide: Thermochemical Measurement, Mass Spectrometry, and ab Initio

Calculations

AUTHOR(S): Emel'yanenko, Vladimir N.; Verevkin, Sergey P.;

Heintz, Andreas; Corfield, Jo-Anne; Deyko, Alexey; Lovelock, Kevin R. J.; Licence, Peter; Jones, Robert

G.

CORPORATE SOURCE: Department of Physical Chemistry, University of

Rostock, Rostock, 18051, Germany

SOURCE: Journal of Physical Chemistry B (2008), 112(37),

11734-11742

CODEN: JPCBFK; ISSN: 1520-6106

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

AB The standard molar enthalpy of formation of the ionic liquid

1-butyl-1-methylpyrrolidinium dicyanamide has been determined at 298 K by means of combustion calorimetry, while the enthalpy of vaporization and the mass

spectrum of the vapor (ion pairs) have been determined by

temperature-programmed

desorption and line of sight mass spectrometry. Ab initio calcns. for 1-butyl-1-methylpyrrolidinium dicyanamide have been performed using the G3MP2 and CBS-QB3 theory, and the results from homodesmic reactions are in excellent agreement with the expts.

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD

(2 CITINGS)

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 4 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:952616 CAPLUS

TITLE: Dynamics and spectroscopy in room temperature ionic

liquids

AUTHOR(S): Margulis, Claudio J.

CORPORATE SOURCE: Department of Chemistry, University of Iowa, Iowa

City, IA, 52242, USA

SOURCE: Abstracts of Papers, 236th ACS National Meeting,

Philadelphia, PA, United States, August 17-21, 2008

(2008), IEC-166. American Chemical Society:

Washington, D. C. CODEN: 69KXQ2

DOCUMENT TYPE: Conference; Meeting Abstract; (computer optical disk)

LANGUAGE: English

Many recent expts. and our own studies clearly show that for many AB room-temperature ionic liqs., solvent relaxation at the local environment level does not fully occur on a nanosecond time scale. This is important because it is often the case that photo-excitation and emission of probe mols. dissolved in ionic liqs. happen on this time scale. This slow relaxation is due to the sluggish nature of many of these solvents and because of the hindered nature of the solute rotations. We have performed classical mol. dynamics simulations to obtain the Optical Kerr effect (OKE) spectra of 1-methoxyethylpyridinium dicyanoamide in an ionic liquid previously exptl. studied by Shirota and Castner. The decay of the collective polarizability anisotropy correlation exhibits several different time scales originated from inter- and intra mol. dynamics time scales for orientational relaxation and interaction induced processes. One of the salient features is that collision induced phenomena dominates the spectra on a longer time scale (hundreds of picoseconds) than is observed in most polar liqs. at room temperature

L1 ANSWER 5 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:837880 CAPLUS

DOCUMENT NUMBER: 149:206190

TITLE: Shock wave synthesis and exploration of high-pressure

nitrides and related materials

AUTHOR(S): Sekine, Toshimori

CORPORATE SOURCE: Nano Materials Lab, National Institute for Materials

Science, Namiki 1-1, Tsukuba, 305-0044, Japan

SOURCE: Materials Research Society Symposium Proceedings

(2008), Volume Date 2007, 1040E(Nitrides and Related Bulk Materials), No pp. given, Paper #: 1040-Q05-04

CODEN: MRSPDH; ISSN: 0272-9172

URL: http://www.mrs.org/s_mrs/bin.asp?CID=11340&DID=20

9722&DOC=FILE.PDF

PUBLISHER: Materials Research Society DOCUMENT TYPE: Journal; (online computer file)

LANGUAGE: English

We have successfully developed a method to manufacture spinel-type Si3N4 and also a chemical treatment method to sep. the spinel-type phase from the low-pressure phases. Similar methods could be applied for the SiAlON systems. In order to explore high-pressure nitrides and oxynitrides, we extended toward the system Si3N4-AlN-Al203-Si02. According to the results of in situ measurements of the high-pressure behavior up to pressures of 200 GPa, there appears to be post-spinel phase in the system. This is consistent with the results from the first principles calcns. However we could not obtain the post-spinel phase by the shock recovery expts. at present. We also carried out shock recovery expts. on carbon nitrides and related materials. Exptl. results showed formation of a new carbon nitride, high stability of melamine up to a shock pressure of 37 GPa, and production of amorphous C-N materials with the highest N/C ration of 1.26 from the reaction between carbon tetrahalide and sodium dicyanoamide. We tried further to extend toward the systems C3N4-Si3N4 and Mg2SiO4-Si3N4, after taking into account the results on shock wave synthesis of spinel-type nitrides.

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 6 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:777359 CAPLUS

DOCUMENT NUMBER: 149:249241

Tetrahydrothiophenium-Based Ionic Liquids for High TITLE:

Efficiency Dye-Sensitized Solar Cells

Xi, Chengcheng; Cao, Yiming; Cheng, Yueming; Wang, AUTHOR(S):

Mingkui; Jing, Xiaoyan; Zakeeruddin, Shaik M.;

Gratzel, Michael; Wang, Peng

CORPORATE SOURCE: State Key Laboratory of Polymer Physics and Chemistry,

> Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun, 130022, Peop. Rep.

China

Journal of Physical Chemistry C (2008), 112(29), SOURCE:

11063-11067

CODEN: JPCCCK; ISSN: 1932-7447

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

Binary melts of S-ethyltetrahydrothiophenium iodide and dicyanoamide (or tricyanomethide) have been employed for

dye-sensitized solar cells with high power conversion efficiencies up to 6.9% under the illumination of air-mass 1.5G full sunlight. We have further shown that the transport of triiodide in ionic liqs. with high iodide concentration is viscosity-dependent in terms of a phys. diffusion coupled

bond exchange mechanism apart from the simple phys. diffusion. In addition, we have found that some anions of ionic liquid electrolytes such as dicyanoamide have a significant influence on surface states and

electron transport in the mesoporous semiconducting film.

OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD

(4 CITINGS)

55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT:

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 7 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN L1

2008:718352 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 149:208607

TITLE: The influence of electrostatic forces on the structure

and dynamics of molecular ionic liquids

AUTHOR(S): Schroeder, C.; Steinhauser, O.

CORPORATE SOURCE: Department of Computational Biological Chemistry,

University of Vienna, Vienna, A-1090, Austria

SOURCE: Journal of Chemical Physics (2008), 128(22),

224503/1-224503/7

CODEN: JCPSA6; ISSN: 0021-9606 American Institute of Physics

Journal DOCUMENT TYPE: LANGUAGE: English

PUBLISHER:

The vast majority of mol. dynamics simulations are based on nonpolarizable AB force fields with fixed partial charges for all atoms. The traditional way to obtain these charges are quantum-mech. calcns. performed prior to simulation. Unfortunately, the set of the partial charges heavily relies on the method and the basis set used. Therefore, investigations of the influence of charge variation on simulation data are necessary in order to validate various charge sets. This paper elucidates the consequences of different charge sets on the structure and dynamics of the ionic liquid: 1-ethyl-3-methyl-imidazolium dicyanoamide. The structural features seem to be more or less independent of the partial charge set pointing to a dominance of shape force as modeled by Lennard-Jones parameters. This can be seen in the radial distribution and orientational correlation functions. The role of electrostatic forces comes in when studying dynamical properties. Here, significant deviations between different charge sets can be observed Overall, dynamics seems to be governed by viscosity. In fact, all dynamical parameters presented in this work can be converted from one charge set to another by viscosity scaling. (c)

2008 American Institute of Physics.

REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 8 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:685803 CAPLUS

DOCUMENT NUMBER: 149:9465

TITLE: Molecular Dynamics Study of the Temperature-Dependent

Optical Kerr Effect Spectra and Intermolecular Dynamics of Room Temperature Ionic Liquid 1-Methoxyethylpyridinium Dicyanoamide

AUTHOR(S): Hu, Zhonghan; Huang, Xuhui; Annapureddy, Harsha V. R.;

Margulis, Claudio J.

CORPORATE SOURCE: Department of Chemistry, The University of Iowa, Iowa

City, IA, 52242, USA

SOURCE: Journal of Physical Chemistry B (2008), 112(26),

7837-7849

CODEN: JPCBFK; ISSN: 1520-6106

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

AB We have performed classical mol. dynamics simulations to calculate the Optical

Kerr effect (OKE) spectra of 1-methoxyethylpyridinium dicyanoamide

, a room-temperature ionic liquid (IL) which has been recently studied by ${\tt Shirota}$

and Castner (Shirota, H.; Castner, E.J. Phys. Chemical A 2005, 109, 9388-9392) in comparison to its neutral isoelectronic solvent mixture theor. and computational studies show that the decay of the collective polarizability anisotropy correlation exhibits several different time scales originating from inter- and intramol. dynamics, in good agreement with expts. What's more, we find that the portion of the collective anisotropic polarizability relaxation due to "interaction-induced" phenomena is important at times much longer than those observed in normal solvents when these are far from their glass transition temperature From our long (60 ns) mol. dynamics simulations, we are able to determine the appropriate time scales for orientational relaxation and interaction-induced processes occurring in the liquid We find that the cationic contribution to the OKE signal is predominant. Because of the slow nature of relaxation processes in ILs, these calcns. are very time, memory, and storage intensive. In the context of this research, we have developed a polarizable force field for this system and also theor. methodol. to generate mol. polarizabilities for arbitrarily shaped mols. and ions from corresponding atomic polarizabilities. We expect this methodol. to have an important impact on the speed of mol. dynamics simulations of polarizable systems in the future.

OS.CITING REF COUNT: 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)

REFERENCE COUNT: 63 THERE ARE 63 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 9 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:595384 CAPLUS

DOCUMENT NUMBER: 149:12026

TITLE: Preparation and application of guanidine compounds in

reverse flotation of bauxite

INVENTOR(S): Zhong, Hong; Liu, Guangyi; Zhao, Shenggui PATENT ASSIGNEE(S): Central South University, Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 9pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

CN 101176861 A 20080514 CN 2007-10036184 20071121
PRIORITY APPLN. INFO.: CN 2007-10036184 20071121
OTHER SOURCE(S): MARPAT 149:12026

The monoguanidine compound R1(R2)NC(:NH)NH2.(1/n)HnX or diguanidine compound R1(R2)NC(:NH)NHC(:NH)NH2.(2/n)HnX (R1 = C6-20 linear or branched alkyl, cycloalkyl, alkenyl aryl; R2 = H, C1-8 linear or branched alkyl, cycloalkyl, alkenyl, aryl; HnX is inorg. or organic acid; n = 1-3) is used as collector for reverse flotation of bauxite. The title guanidine compound collector has high selectivity and collecting capable to aluminosilicate mineral (such as kaolinite, pyrophyllite, illite) and silicate mineral (such as quartz), and is applied at an ore slurry at pH 3-13 and a dosage of 50-500 g/ton. The monoguanidine compound is prepared from organic amine and monocyanoamide in acid medium at 80-150° for 1-5 h without purification The diguanidine compound is prepared from organic amine and dicyanoamide at 50-100° for 5-15 h in the presence of Cu2+ salt.

L1 ANSWER 10 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:213293 CAPLUS

DOCUMENT NUMBER: 148:313685

TITLE: Capture of Dioxins by Ionic Liquids

AUTHOR(S): Kulkarni, Prashant S.; Branco, Luis C.; Crespo, Joao

G.; Afonso, Carlos A. M.

CORPORATE SOURCE: CQFM, Departamento de Engenharia Quimica e Biologica,

Instituto Superior Tecnico, Lisbon, 1049-001, Port. Environmental Science & Technology (2008), 42(7),

2570-2574

CODEN: ESTHAG; ISSN: 0013-936X

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

SOURCE:

Dioxins are highly toxic compds. mainly originating from incineration and combustion sources. A simple, efficient approach to absorb dioxins from gas streams using thermally-stable ionic liqs. is described. The absorption process of non-chlorinated and chlorinated dibenzo-p-dioxins was studied at 100-200°. Imidazolium-, ammonium-, and quanidinium-based ionic ligs. were designed for this specific purpose. Imidazolium cations with long alkyl side chains exhibited highest absorption capacity; the anion, dicyanoamide [DCA], possessed higher absorption capacity than other studied anions. In a typical experiment, the ionic liquid, 1-n-octyl-3-Me imidazolium dicyanoamide [C8mim][DCA], absorbed >14% by weight of dibenzo-p-dioxin, 2-chlorodibenzo-p-dioxin, and 1,2,3,4-tetrachlorodibenzo-p-dioxin from a gas stream. A desorption process for dioxins from the ionic liquid showed complete desorption can be achieved under a high vacuum. Also, process feasibility was examined by conducting expts. under actual incineration and combustion process operating conditions. Method success heavily relied on design and selection of specific ionic liqs. with enhanced affinity for the aromatic compound functionality present in dioxins and, simultaneously, their extremely low volatility and high chemical and thermal stability.

OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD

(6 CITINGS)

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 11 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:121932 CAPLUS

DOCUMENT NUMBER: 148:454342

TITLE: Shock wave chemical reactions: Synthesis of carbon

nitrides

AUTHOR(S): Sekine, Toshimori

CORPORATE SOURCE: National Institute for Materials Science, Namiki 1-1,

Tsukuba, 305-0044, Japan

Materials Science Forum (2008), 566(Explosion, Shock SOURCE:

Wave and Hypervelocity Phenomena in Materials II),

125-128

CODEN: MSFOEP; ISSN: 0255-5476 Trans Tech Publications Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

PUBLISHER:

A series of shock recovery expts. up to .apprx.50 GPa were performed on reactions to form carbon nitrides. Nitrogen-rich starting materials, included a C-N-O amorphous precursor, dicyandiamide, melamine, and a mixture of carbon tetrahalide and sodium dicyanoamide, were used and the recovered samples were investigated by X-ray diffraction technique, elemental anal., transmission electron microscopy and so on. Exptl. results showed formation of a new carbon nitride, high stability of melamine up to a shock pressure of $37~\mathrm{GPa}$, and production of amorphous C-N materials with a highest N/C ration of 1.26 from the reaction between carbon tetrahalide and sodium dicyanoamide. We extended to the system C3N4-Si3N4 based on the recent results on synthesis of spinel-type nitrides. Shock wave chemical reactions provide a route for synthesizing novel materials including not only high-pressure phases but also metastable, unique substances.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 12 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:1224251 CAPLUS

DOCUMENT NUMBER: 148:33368

Comparison of physicochemical properties of new ionic TITLE:

liquids based on imidazolium, quaternary ammonium, and

quanidinium cations

Kulkarni, Prashant S.; Branco, Luis C.; Crespo, Joao AUTHOR(S):

G.; Nunes, M. Cristiana; Raymundo, Anabela; Afonso,

Carlos A. M.

CORPORATE SOURCE: Departamento de Quimica, FCT-UNL, REQUIMTE, Caparica,

2829-516, Port.

SOURCE: Chemistry--A European Journal (2007), 13(30),

8478-8488

CODEN: CEUJED; ISSN: 0947-6539

PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA

Journal DOCUMENT TYPE: LANGUAGE: English

More than 50 ionic liqs. were prepared by using imidazolium, quaternary AB ammonium, and quanidinium cations and various anions. In these series, different cationic structures such as 1-benzyl-3-methylimidazolium [Bzmim]+, 1,3-dibenzylimidazolium [BzmiBz]+, 1-octyl-3-methylimidazolium [C8mim]+, 1-decyl-3-methylimidazolium [C10mim]+, tricaprylmethylammonium [Aliquat]+, benzyltriethylammonium [BzTEA]+, phenyltrimethylammonium [PhTMA]+, and dimethyldihexylquanidinium [DMG]+ were combined with anions, p-toluenesulfonate [TSA]-, dicyanoamide [DCA]-, saccharine (2-sulfobenzoic acid imide sodium salt) [SAC]-, trifluoroacetate [TFA]-, $\verb|bis(trifluoromethanesulfonyl)| imide [Tf2N]-, trifluoromethanesulfonate|$ [TfO]-, and thiocyanate [SCN]-. Important phys. data for these ionic liqs. are collated, namely solubility in common solvents, viscosity, d., m.p. and water content. Apart from the viscosity, the Newtonian and non-Newtonian behavior of these ionic liqs. is also disclosed. Stability of these ionic liqs. under thermal, basic, acidic, nucleophilic, and oxidative conditions was also studied. The features of the solid-liquid phase transition were analyzed, namely the glass transition temperature and the

heat capacity jump associated with the transition from the non-equilibrium glass

to the metastable supercooled liquid A degradation temperature of each ionic liquid was

also determined Comparisons of the properties of various ionic liqs. were made.

THERE ARE 13 CAPLUS RECORDS THAT CITE THIS OS.CITING REF COUNT: 13 RECORD (13 CITINGS)

THERE ARE 102 CITED REFERENCES AVAILABLE FOR REFERENCE COUNT: 102 THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

ANSWER 13 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

2007:730985 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 147:119378

TITLE: Thermally hardenable adhesive based on acrylic polymer

reacted with hardener for thermostable joint

APPLICATION NO.

DATE

connections and coatings

Ander, Hansjoerg; Fogel, Thomas INVENTOR(S):

PATENT ASSIGNEE(S): Lohmann G.m.b.H. & Co. K.-G., Germany

SOURCE: PCT Int. Appl., 17pp.

CODEN: PIXXD2

KIND DATE

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

| - | | | | | | _ | | | | | | | | | _ | | |
|--------|--|-------|------|-----|-----|-----|------|------|-----|------|------|------|------|------|-----|-------|-----|
| V | VO 2007 | 0738. | 26 | | A1 | | 2007 | 0705 | 1 | wo 2 | 006- | EP11 | 806 | | 2 | 0061 | 204 |
| | W: | ΑE, | AG, | AL, | AM, | ΑT, | ΑU, | ΑZ, | BA, | BB, | BG, | BR, | BW, | BY, | BZ, | CA, | CH, |
| | | CN, | CO, | CR, | CU, | CZ, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FI, | GB, | GD, | GE, |
| | | GH, | GM, | GT, | HN, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KΕ, | KG, | KM, | KN, | KP, |
| | | KR, | KΖ, | LA, | LC, | LK, | LR, | LS, | LT, | LU, | LV, | LY, | MA, | MD, | MG, | MK, | MN, |
| | | MW, | MX, | MY, | MZ, | NA, | NG, | NΙ, | NO, | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | RS, |
| | | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SM, | SV, | SY, | ΤJ, | TM, | TN, | TR, | TT, | TZ, |
| | | UA, | UG, | US, | UZ, | VC, | VN, | ZA, | ZM, | ZW | | | | | | | |
| | RW: | ΑT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FI, | FR, | GB, | GR, | HU, | ΙE, |
| | | IS, | IT, | LT, | LU, | LV, | MC, | NL, | PL, | PT, | RO, | SE, | SI, | SK, | TR, | BF, | ВJ, |
| | | CF, | CG, | CI, | CM, | GΑ, | GN, | GQ, | GW, | ML, | MR, | ΝE, | SN, | TD, | ΤG, | BW, | GH, |
| | | GM, | ΚE, | LS, | MW, | MZ, | NA, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | ΑZ, | BY, |
| | | KG, | KΖ, | MD, | RU, | ТJ, | TM | | | | | | | | | | |
| Ι | DE 1020 | 0506. | 2442 | | A1 | | 2007 | 0705 | | DE 2 | 005- | 1020 | 0506 | 2442 | 2 | 00512 | 227 |
| PRIORI | PRIORITY APPLN. INFO.: DE 2005-102005062442A 20051227 | | | | | | | | | | | | | | | | |
| AB A | AB A method for producing thermally hardenable adhesives, especially a | | | | | | | | | | | | | | | | |
| 1-1-6 | | | | | | | | | | | | | | | | | |

AB bifunctional

adhesive system for adhesive strips and/or joint connections or thermostable coatings over molded parts involves a thermal solvent polymerization

of a monomer mixture comprising of 10-50 % of ethylhexyl acrylate, 1-10 % of hydroxyethyl acrylate, 1-30 % of isobornyl acrylate, 5-30 % of glycidyl methacrylate, and 10-20 % of hexyl acrylate, with an initiator, and addition of a catalyst/hardener to the polymerization product. Et acetate is used as a solvent for polymerization and azoisobutyronitrile is used as initiator with ammonium toluol sulfonate , such as dicyandiamide and aromatic ureas added as hardeners into solution of formed polymer.

REFERENCE COUNT: THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 14 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN L1

ACCESSION NUMBER: 2006:831596 CAPLUS

DOCUMENT NUMBER: 145:423971 TITLE: Nitrogen-rich carbon nitride materials

shock-synthesized from carbon tetrahalide and sodium

dicvanoamide

AUTHOR(S): Shibata, Kazusato; Sekine, Toshimori

CORPORATE SOURCE: Advanced Materials Laboratory, National Institute for

Materials Science, Ibaraki, 305-0044, Japan

SOURCE: Solid State Communications (2006), 139(10), 501-505

CODEN: SSCOA4; ISSN: 0038-1098

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

AB Shock reactions between CX4 (X=Br or I) and NaN(CN)2 were investigated to prepare carbon nitrides. The post shock samples were characterized by the powder X-ray diffraction (XRD) technique. The XRD spectrum of the product showed a peak in the range of 0.324-0.336 nm in d-value corresponding to the (002) basal plane diffraction in graphitic structure. Elemental anal. (C, H, N, O) of the product showed that the atomic ratio of nitrogen to carbon (N/C) ranged from 0.38 to 1.3. Anal. of data revealed that the d-value increased and the nitrogen content decreased with the increase of the impact velocity.

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD

(2 CITINGS)

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 15 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:602639 CAPLUS

DOCUMENT NUMBER: 145:75195

TITLE: Aluminum electrolytic capacitors provided with

electrolytic solution containing dicyanoamides

and nitro compounds

INVENTOR(S): Matsuda, Akihiro; Ogami, Seitaro; Tani, Tomoyuki; Ito,

Tomonori

PATENT ASSIGNEE(S): Nichicon Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--------------------------------------|------|----------|----------------------------------|----------------------|
| | | | | |
| JP 2006165001 PRIORITY APPLN. INFO.: | А | 20060622 | JP 2004-349327
JP 2004-349327 | 20041202
20041202 |

OTHER SOURCE(S): MARPAT 145:75195

AB The electrolyte solution provided for the title electrolytic capacitors contains dicyanoamide R+•-N(C.tplbond.N)2 (R+ = cation) and ≥1 nitro compds. The electrolyte solution gives the capacitors low impedance, low equivalent-series resistance, high-temperature durability, and withstand-voltage stability.

L1 ANSWER 16 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:122118 CAPLUS

DOCUMENT NUMBER: 144:193780

TITLE: New pyridinium imine based dyes and their use in

optical layers for optical data recording

INVENTOR(S): Graciet, Jean-Christophe

PATENT ASSIGNEE(S): Clariant International Ltd., Switz.

SOURCE: Eur. Pat. Appl., 13 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE _____ _____ _____ ____ EP 2004-18578 20040805 EP 1624029 Α1 20060208 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR PRIORITY APPLN. INFO.: EP 2004-18578 OTHER SOURCE(S): CASREACT 144:193780; MARPAT 144:193780

GΙ

AΒ The pyridinium imine can be presented by a formula I, wherein R1, R2 = H, C1-8-alkyl unsubstituted or substituted by C1-4-alkyl, hydroxy, C6-12-aryl or -NR5R6 with R5 and R6 selected from H, C1-8-alkyl or C6-12-aryl; R3 = C1-8-alkyl unsubstituted or substituted by C1-4-alkyl, hydroxy or -NR7R8 with R7 and R8 selected from H, C1-8-alkyl or C6-12-aryl; R4 = H, cyano, halogen, nitro, hydroxy or C1-12-alkyl; An- represents an counter anion selected from inorg. anions such as iodine, fluorine, bromine, perchlorate, hexafluoroantimonate, hexafluorophosphate, tetrafluoroborate, tetraphenylborate, or organic anions such as dicyanoamide or trifluoromethanesulfonimide; An- can also be an anionic azo metal complex based on cobalt metal. Thus, 2-aminopyridine 5, triethylorthoformate 7.9, and barbituric acid 6.8 parts were mixed into 50 parts acetic acid and refluxed for 12 h to give 2-(5-methine-imino-barbituric acid)-pyridine, 1.5 parts of which was mixed with 1.8 parts triethyloxonium tetrafluoroborate in dichloromethane and stirred at 40° for 12 h to give pyridinium tetrafluoroborate salt with 95% yield.

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD

(1 CITINGS)

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 17 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

Ι

ACCESSION NUMBER: 2005:1059146 CAPLUS

DOCUMENT NUMBER: 144:12083

TITLE: Physical Properties and Intermolecular Dynamics of an

Ionic Liquid Compared with Its Isoelectronic Neutral

Binary Solution

AUTHOR(S): Shirota, Hideaki; Castner, Edward W., Jr.

CORPORATE SOURCE: Department of Chemistry and Chemical Biology, Rutgers,

The State University of New Jersey, Piscataway, NJ,

08854-8087, USA

SOURCE: Journal of Physical Chemistry A (2005), 109(42),

9388-9392

CODEN: JPCAFH; ISSN: 1089-5639

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

We address the following question about room-temperature ionic liqs. (RTILs). Are the properties of a RTIL more dependent on the charges of the mol. ions or on the fact that the liquid is a complex mixture of two species, one or both of which are asym.. To address this question and to better understand the interactions and dynamics in RTILs, we have prepared the organic ionic liquid (2-methoxyethyl)pyridinium dicyanoamide (MOEPy+/DCA-) and compared this RTIL with the analogous isoelectronic binary solution, comprised of equal parts of (2-methoxyethyl)benzene (MOEBz) and dicyanomethane (DCM). In essence, we have created a RTIL and a nearly identical neutral pair in which we have effectively turned off the charges. To understand the intermol. interactions in both of these liqs., we have characterized the bulk d. and shear viscosity. Using femtosecond optical Kerr effect spectroscopy, we have also characterized the intermol. vibrational dynamics and diffusive reorientation. To verify that the shape, polarizability, and electronic structure of the RTIL ions and the components of the neutral pair are truly quite similar, we have carried out d. functional theory calcns. on the individual mol. ion and neutral species.

OS.CITING REF COUNT: 35 THERE ARE 35 CAPLUS RECORDS THAT CITE THIS

RECORD (35 CITINGS)

REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 18 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:444314 CAPLUS

DOCUMENT NUMBER: 143:97068

TITLE: Ultrafast dynamics of pyrrolidinium cation ionic

liquids

AUTHOR(S): Shirota, Hideaki; Funston, Alison M.; Wishart, James

F.; Castner, Edward W., Jr.

CORPORATE SOURCE: Department of Chemistry & Chemical Biology, Rutgers,

The State University of New Jersey, Piscataway, NJ,

08854-8087, USA

SOURCE: Journal of Chemical Physics (2005), 122(18),

184512/1-184512/12

CODEN: JCPSA6; ISSN: 0021-9606

PUBLISHER: American Institute of Physics

DOCUMENT TYPE: Journal LANGUAGE: English

AB We have investigated the ultrafast mol. dynamics of five pyrrolidinium cation room temperature ionic liqs. using femtosecond optical heterodyne-detected Raman-induced Kerr effect spectroscopy. The ionic liqs. studied are N-butyl-N-methylpyrrolidinium bis(trifluoromethylsulfonyl)imide (P14+/NTf2-), N-methoxyethyl-N-methylpyrrolidinium bis(trifluoromethylsulfonyl)imide (P1EOM+/NTf2-), N-ethoxyethyl-N-methylpyrrolidinium bis(trifluoromethylsulfonyl)imide (P1EOE+/NTf2-), N-ethoxyethyl-N-methylpyrrolidinium bromide (P1EOE+/Br-), and N-ethoxyethyl-N-methylpyrrolidinium dicyanoamide (P1EOE+/DCA-). For comparing dynamics among the five ionic liqs., we categorize the ionic liqs. into two groups. One group of liqs. comprises the three pyrrolidinium cations P14+, P1EOM+, and P1EOE+ paired with the NTf2-anion. The other group of liqs. consists of the P1EOE+ cation paired with each of the three anions NTf2-, Br-, and DCA-. The overdamped relaxation for time scales longer than 2 ps has been fit by a triexponential function for each of the five pyrrolidinium ionic liqs. The fast (.apprx.2 ps) and intermediate (.apprx.20 ps) relaxation time consts. vary little among these five ionic liqs. However, the slow relaxation time constant

correlates with the viscosity. Thus, the Kerr spectra in the range from 0 to $750\ \mathrm{cm}{-1}$ are quite similar for the group of three pyrrolidinium ionic

liqs. paired with the NTf2- anion. The intermol. vibrational line shapes between 0 and 150 cm-1 are fit to a multimode Brownian oscillator model; adequate fits required at least three modes to be included in the line shape.

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD

(2 CITINGS)

REFERENCE COUNT: 107 THERE ARE 107 CITED REFERENCES AVAILABLE FOR

THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L1 ANSWER 19 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:239320 CAPLUS

DOCUMENT NUMBER: 142:319814

TITLE: Electrolyte composition and photoelectric converter

using the composition

INVENTOR(S): Watanabe, Masayoshi; Kawano, Ryuji; Matsuyama,

Chizuru; Matsui, Hiroshi; Tanabe, Nobuo

PATENT ASSIGNEE(S): Fujikura Ltd., Japan SOURCE: PCT Int. Appl., 17 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PA | PATENT NO. | | | KIND DATE | | | APPLICATION NO. | | | | | | DATE | | | | |
|------|------------|------|--------|-----------|-------------|-----|-----------------|------|-----|-------|----------|---------|------|-----|----------|------|-----|
| WO | 2005 | 0249 |
92 | | A1 20050317 | | | | wo | 2004- |
JP13 |
253 | | 2 |
0040 | 906 | |
| | W: | ΑE, | AG, | AL, | AM, | ΑT, | ΑU, | AΖ, | BA, | BB | BG, | BR, | BW, | BY, | BΖ, | CA, | CH, |
| | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ | , EC, | EE, | EG, | ES, | FI, | GB, | GD, |
| | | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS | , KE, | KG, | KP, | KR, | KΖ, | LC, | LK, |
| | | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK | MN, | MW, | MX, | MZ, | NA, | NI, | NO, |
| | | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC | , SD, | SE, | SG, | SK, | SL, | SY, | ΤJ, |
| | | | | | | | | | | | , VC, | | | | | | |
| | RW: | BW, | GH, | GM, | KΕ, | LS, | MW, | MZ, | NA, | SD | , SL, | SZ, | TZ, | UG, | ZM, | ZW, | ΑM, |
| | | ΑZ, | BY, | KG, | KΖ, | MD, | RU, | ΤJ, | TM, | ΑT | , BE, | BG, | CH, | CY, | CZ, | DE, | DK, |
| | | EE, | ES, | FΙ, | FR, | GB, | GR, | HU, | ΙE, | ΙT | , LU, | MC, | NL, | PL, | PT, | RO, | SE, |
| | | SI, | SK, | TR, | BF, | ВJ, | CF, | CG, | CI, | CM | I, GA, | GN, | GQ, | GW, | ML, | MR, | ΝE, |
| | | , | TD, | | | | | | | | | | | | | | |
| JP | 2005 | 0855 | 87 | | А | | 2005 | 0331 | | | 2003- | | | | | | |
| TW | 2854 | 37 | | | В | | 2007 | 0811 | | TW | 2004- | 9312 | 6687 | | 2 | 0040 | 903 |
| ΑU | 2004 | 3030 | 35 | | A1 | | 2005 | 0317 | | AU | 2004- | 3030 | 35 | | 2 | 0040 | 906 |
| | 2004 | | | | | | 2008 | | | | | | | | | | |
| | 2538 | | | | | | | | | | 2004- | | | | | | |
| EP | 1675 | | | | | | 2006 | | | EΡ | 2004- | 7729 | 35 | | 2 | 0040 | 906 |
| | | | | | | | SE, | | | | | | | | | | |
| | 1846 | | | | | | 2006 | 1011 | | | 2004- | | | | | | |
| KR | 2006 | | | | | | 2006 | | | KR | 2006- | 7042 | 45 | | 2 | 0060 | 228 |
| | 7670 | | | | | | 2007 | | | | | | | | | | |
| US | 2008 | 0060 | 698 | | A1 | | 2008 | 0313 | | | 2007- | | | | | | |
| ORIT | Y APP | LN. | INFO | .: | | | | | | | 2003- | | | | | | |
| | | | | | | | | | | - | 2004- | - | | | | | |
| CC 1 | | | | | | | | | | | | | | | 1 1 | | |

AB The composition contains an ionic liquid, having a dicyanoamide anion as an anion. The converter uses the above composition as an electrolyte. Preferably, the ionic liquid contains a quaternarized N atom as a cation.

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD

(2 CITINGS)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 20 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2004:884673 CAPLUS

DOCUMENT NUMBER: 142:67960

TITLE: Self assembly of a 2D bilayer Cd(II)-organic framework

with mixed nicotinate/dicyanoamide ligands

AUTHOR(S): Luo, Junhua; Jiang, Feilong; Wang, Ruihu; Han, Lei;

Lin, Zhenzhong; Cao, Rong; Hong, Maochun

CORPORATE SOURCE: State Key Laboratory of Structural Chemistry, Fujian

Institute of Research on the Structure of Matter, Chinese Academy of Sciences, Fujian, 350002, Peop.

Rep. China

SOURCE: Journal of Molecular Structure (2004), 707(1-3),

211-216

CODEN: JMOSB4; ISSN: 0022-2860

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 142:67960

AB A novel 2-dimensional bilayer framework [Cd3(nta)4(dca)2(H2O)4]n (1) (Hnta = nicotinic acid, Hdca = dicyanamide) was obtained by slow diffusion of a CdCl2 aqueous solution into a mixture of sodium dicyanamide, Hnta and NaOH aqueous

solution in a U-tube. The framework of 1 consists of a mol. ladder containing [Cd6(nta)6] rectangular metallomacrocyles, and the ladders are further linked by end-to-end dicyanamide bridges to form a unique 2-dimensional

bilayer framework. Supramol. organization of

 $\pi \cdots \pi$ interaction between adjacent layers

extends the 2-dimensional bilayer into a 3-dimensional network. Complex 1 is stable up to 315° and exhibits a strong fluorescent emission

band at 580 nm (λ ex = 314 nm) in the solid state.

OS.CITING REF COUNT: 10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS

RECORD (10 CITINGS)

REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 21 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:853581 CAPLUS

DOCUMENT NUMBER: 142:39139

TITLE: Antiflammable epoxy resin composition for laminating

of copper sheet

INVENTOR(S): Seok, Jae Han; Cho, Sae Hyun PATENT ASSIGNEE(S): Kolon Ind. Inc., S. Korea SOURCE: Repub. Korea, No pp. given

CODEN: KRXXFC

DOCUMENT TYPE: Patent LANGUAGE: Korean

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| | | | | |
| KR 197945 | B1 | 19990615 | KR 1996-49870 | 19961030 |
| PRIORITY APPLN. INFO.: | | | KR 1996-49870 | 19961030 |

AB A resin composition for flame retardant epoxy copper foil laminate used for a multilayer printed circuit board and containing no halogen is provided which resolves problems of harmfulness by gas generated during burning and metal corrosion by using a phosphorous-based flame retardant in place of conventional halogen-based flame retardant. The resin composition comprises (A) 100g bromine-free bisphenol A type epoxy resin; (B) red phosphor of formula (I) in an amount where a total amount of phosphorous of the epoxy resin becomes 2 to 20%; (C) 0.5 to 20g Dicyanamide curing agent; (D) 0.01 to 3g imidazole curing accelerator; (E) 0 to 150g inorg. flame retardant aid; (F) 1 to 10g flame retardant catalyst; and (G) 0.1 to 3% by weight of a coupling agent based on the inorg. flame retardant aid.

L1 ANSWER 22 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:701133 CAPLUS

DOCUMENT NUMBER: 141:228098

TITLE: Pigment sensitized photoelectrochemical cell

INVENTOR(S): Mizuta, Keiichiro; Nakamura, Junichi PATENT ASSIGNEE(S): Nippon Shokubai Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PA: | PATENT NO. | | | | KIND DATE | | | APPLICATION NO. | | | | | DATE | | | | |
|---------|------------|------|------|-----|-------------|-----|------|-----------------|-----|------|------|----------|------|-----|-----|------|-----|
| | | | | | | _ | | | | | | | | | | | |
| JP | 2004 | 2413 | 78 | | Α | | 2004 | 0826 | | JP 2 | 004- | 3974 | | | 2 | 0040 | 109 |
| EP | EP 1528580 | | | | A2 20050504 | | | EP 2004-290090 | | | | 20040114 | | | | | |
| | R: | ΑT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GR, | IT, | LI, | LU, | NL, | SE, | MC, | PT, |
| | | ΙE, | SI, | LT, | LV, | FΙ, | RO, | MK, | CY, | AL, | TR, | BG, | CZ, | EE, | HU, | SK | |
| PRIORIT | APP | LN. | INFO | .: | | | | | | JP 2 | 003- | 7444 | | | A 2 | 0030 | 115 |
| GI | | | | | | | | | | | | | | | | | |

$$(NC)_{?} - (M^{1})_{?} - X^{-} - (M^{2})_{?} - (CN)_{d}$$
 $(Q)_{e}$
 $R^{3} - N - N^{+} - R^{1}$
 $R^{4} - R^{5} - R^{5}$

AB The title cell contains an ionic material having an anion I [X = B, C, N, O, Al, Si, P, As, and/or Se; M1, M2 = organic linking group; Q = organic group; a (integer) ≥1; and b,c,d (integer) ≥ 0]. Preferably, the ionic material contains an onium cation II (R1-5 = organic group; and may bond to each other) and an dicyanoamide anion.

OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD

L1 ANSWER 23 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:452153 CAPLUS

DOCUMENT NUMBER: 142:206671

TITLE: Optical studies of κ -(ET)2Cu[N(CN)2]Br0.85Cl0.15 AUTHOR(S): Barz, J.; Dumm, M.; Dressel, M.; Meziere, C.; Batail,

(3 CITINGS)

Р.

CORPORATE SOURCE: 1. Physikalisches Institut, Universitaet Stuttgart,

Stuttgart, D-70550, Germany

SOURCE: Journal de Physique IV: Proceedings (2004), 114(ISCOM

2003, Fifth International Symposium on Crystalline Organic Metals, Superconductors and Ferromagnets,

2003), 289-290

CODEN: JPICEI; ISSN: 1155-4339

PUBLISHER: EDP Sciences

DOCUMENT TYPE: Journal LANGUAGE: English

AB The low-temperature ground states of the quasi two-dimensional layered organic charge transfer salts κ -(ET)2Cu[N(CN)2]Br1-xClx are known to be strongly dependent on the Br/Cl content of the anions. At low temps., pure Cl compds. undergo a phase transition into an antiferromagnetic

ground state while the pure Br compound is a organic superconductor. Here the authors present polarized IR reflectivity measurements on the compound with 85% bromine and 15% chlorine. Measurements were performed within the highly conducting a-c plane. From room temperature down to 90 K, the authors observe the typical signatures of a semiconductor in spectra. When the sample is cooled down further, a significant amount of spectral weight is shifted towards lower frequencies. At 6 K, a Drude-like optical conductivity

observed in the far IR.

REFERENCE COUNT: THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L1 ANSWER 24 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

1998:716110 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 130:19565

Multilayer printed circuit boards TITLE:

INVENTOR(S): Mikado, Yukinobu

Ibiden Co., Ltd., Japan PATENT ASSIGNEE(S):

Jpn. Kokai Tokkyo Koho, 11 pp. SOURCE:

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------------|---------|-------------|-------------------------|----------|
| | | | | | |
| | JP 10294568 | A | 19981104 | JP 1997-114169 | 19970417 |
| PRIO | RITY APPLN. INFO.: | | | JP 1997-114169 | 19970417 |
| AB | The interlayer insu | lator f | ilms of the | circuit boards contain, | 1 - 100 |
| | - | | | ds. containing cyano gr | |
| | | | | | |

as dicyanoamides. The insulator films can prevent swallowing due to moisture or peeling of internal circuit layers.

ANSWER 25 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN L1

ACCESSION NUMBER: 1994:191751 CAPLUS

DOCUMENT NUMBER: 120:191751

ORIGINAL REFERENCE NO.: 120:33947a,33950a

On the ambident coordination behavior of cyanide TITLE:

substituted, singly charged amide and methanide ions

AUTHOR(S): Jaeger, L.

CORPORATE SOURCE: Inst. Gen. Inorg. Chem., Martin-Luther-Univ.,

Halle/Saale, D-O-4010, Germany

SOURCE: Conference on Coordination Chemistry (1993),

14th (Contributions to Development of Coordination

Chemistry), 205-10

CODEN: PCCHDB; ISSN: 0139-9535

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

A review with 19 refs. The synthesis of cyanamido and dicyanomethanido carboxylates, phosphinates or sulfonates, resp. is described. These singly charged anions show in their chemical behavior distinct parallels to the nonlinear pseudohalides dicyanoamide and tricyanomethanide. One feature of these species, observed in organometal derivs. and transition metal complexes is the favorite coordination via the terminal nitrogen atoms. In dependence on the character of the central atom, nitrogen or sulfur bonded isomers were formed. The structures of the new compds. were determined by means of NMR or x-ray investigations, resp.

ANSWER 26 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1994:67085 CAPLUS

DOCUMENT NUMBER: 120:67085 ORIGINAL REFERENCE NO.: 120:11905a,11908a

TITLE: Magnetic-field-induced transition to resistive phase

in superconducting κ -(BEDT-TTF)2Cu[N(CN)2]Cl

AUTHOR(S): Sushko, Yuri V.; Ito, Hiroshi; Ishiguro, Takehiko;

Horiuchi, Sachio; Saito, Gunji

Dep. Phys., Kyoto Univ., Kyoto, 606-01, Japan CORPORATE SOURCE: SOURCE:

Journal of the Physical Society of Japan (1993),

62(10), 3372-75

CODEN: JUPSAU; ISSN: 0031-9015

DOCUMENT TYPE: Journal LANGUAGE: English

Application of a high magnetic field to the pressure-stabilized

superconducting state appearing below Tcl in

 κ -(BEDT-TTF)2Cu[N(CN)2]Cl enhances/induces a resistive ground state below Tc2 (<Tcl). The resistivity in the field-induced phase is

insensitive to temperature variation. The field-induced transition is also

characterized by a marked resistivity vs. field hysteresis and by a pronounced long-time dependence.

OS.CITING REF COUNT: THERE ARE 15 CAPLUS RECORDS THAT CITE THIS 15 RECORD (15 CITINGS)

ANSWER 27 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

1993:115573 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 118:115573

ORIGINAL REFERENCE NO.: 118:19901a,19904a

A linkage isomeric pair of bis(dicyanoamido) TITLE:

bis(imidazole)copper(II) complexes with considerably

different magnetic properties

Mrozinski, Jerzy; Hvastijova, Maria; Kohout, Jiri AUTHOR(S): CORPORATE SOURCE: Inst. Chem., Wroclaw Univ., Wroclaw, 50 383, Pol.

SOURCE: Polyhedron (1992), 11(22), 2867-71

CODEN: PLYHDE; ISSN: 0277-5387

DOCUMENT TYPE: Journal LANGUAGE: English

Two isomeric (α and β) Cu{N(CN)2}3L2 (L = imidazole) were

prepared and studied by IR, far-IR, electronic, ESR spectra, and by temperature-dependent (≥ 4.2 K) magnetic susceptibility measurements. 6-coordinate polymeric chain structure is assumed with different bridging functions of the N(CN)2 group, viz. through both cyanide N atoms and

through amide and cyanide N atoms in the α - and β -isomers,

resp. The temperature-dependent magnetic behavior at ≥15.7 K for both

isomers is typical for intramol. antiferromagnets with $J \approx -1.6$ (α -isomer) or -6.2 cm-1 (β -isomer). At <15.7 K the magnetic

systems show different long-range ordering, antiferromagnetic in the

 β - but ferromagnetic in the α -isomer.

OS.CITING REF COUNT: 34 THERE ARE 34 CAPLUS RECORDS THAT CITE THIS RECORD (34 CITINGS)

ANSWER 28 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1992:142639 CAPLUS

DOCUMENT NUMBER: 116:142639

ORIGINAL REFERENCE NO.: 116:23846h,23847a

TITLE: New compounds, coligand, distortion and configuration

isomers isolated from metal ion systems with

pseudohalides and halopyrazoles

Hvastijova, M.; Kohout, J.; Pechackova, D.; Koehler, AUTHOR(S):

Η.

CORPORATE SOURCE: Dep. Inorg. Chem., Slovak Tech. Univ., Bratislava, 812

37, Czech.

Conference on Coordination Chemistry (1991), 13th, SOURCE:

CODEN: PCCHDB; ISSN: 0139-9535

DOCUMENT TYPE: Journal LANGUAGE: English

AB From the systems MII-X--L (M = Cu, Ni, Co; X = NCO, N(CN)2, C(CN)3; and L = 4-chloro-, 4-bromo-, 4-iodopyrazole), MX2L2 and M(L.X)2 were prepared Compds. M(L.X)2 are formed by nucleophilic addition of imine nitrogen from the halopyrazole to the cyanate carbon or to one cyanide carbon of the nonlinear pseudohalide. New cases of coligand distortion and configuration isomers were presented. All compds. were studied by IR and electronic spectroscopy and probably structures were assigned to the relevant complexes.

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L1 ANSWER 29 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1992:83394 CAPLUS

DOCUMENT NUMBER: 116:83394

ORIGINAL REFERENCE NO.: 116:14187a,14190a

TITLE: Preparation of phenylbiguanide derivatives as biocides

INVENTOR(S): Olstein, Alan D.

PATENT ASSIGNEE(S): H.B. Fuller Licensing and Financing, Inc., USA

SOURCE: Eur. Pat. Appl., 16 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PRIORITY APPLN. INFO.:

| PATENT NO. | KIND DATE | APPLICATION NO. | DATE |
|----------------|-------------------|-------------------------|----------|
| | | | |
| EP 456093 | A2 19911113 | EP 1991-107019 | 19910430 |
| EP 456093 | A3 19920108 | | |
| R: AT, BE, CH, | DE, DK, ES, FR, G | GB, GR, IT, LI, LU, NL, | SE |
| JP 04026668 | A 19920129 | JP 1990-266545 | 19901005 |

US 1990-521375 A 19900510

OTHER SOURCE(S): MARPAT 116:83394

GΙ

 $CH_2 = CHCH_2NHCO(CH_2)_2NHCO$ $\begin{array}{c} NHC(:NH)NHC(:NH)NH(CH_2)_3O(CH_2)_{11}Me \\ \\ \end{array}$

Ι

Title compds. AQNYC(:NH)NYC(:NH)NYR [A = H, HO, H2N, CH2:CH2, T(CH2CH2O)q(OCHMeCH2)p(OCH2CHMe)m(OCH2CH2)n, an amine protein linkage, an amine saccharide linkage, polyhydroxyamine linkage, XO2C, X = H, R2R1N, R1, R2 = H, alkyl, amino alc., etc.; Q = phenylene; Y = H, Me; R = CF3(CF2)y, y = 1-20, H2x+1CxO(CH2)x, wherein x = 1-25, etc.; T = H, C1-20 alkyl, n, m, p, q = 0-99], are prepared 4-(HO2CCH2CH2NHCO)C6H4NHC(:NH)NHC(:NH)NH(CH2)11Me (preparation given) in MeOH was added to DCC and H2C:CHCH2NH2 to give biguanide derivative I. I showed MIC of 10-50 ppm against Staphylococcus aureus, Candida albicans, etc.

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L1 ANSWER 30 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1989:559033 CAPLUS

DOCUMENT NUMBER: 111:159033

ORIGINAL REFERENCE NO.: 111:26443a, 26446a

TITLE: Lubricant mixture for glass fibers

INVENTOR(S): Sokolinskaya, M. A.; Makhova, M. F.; Pervak, I. G.;

Zabava, L. K.; Tutakov, O. V.; Dzhigiris, D. D.; Medvedev, A. A.; Kibol, V. F.; Semenovich, G. M.;

Shadchina, Z. M.

PATENT ASSIGNEE(S): Institute of Problems in Material Management, Academy

of Sciences, Ukrainian S.S.R., USSR

SOURCE: U.S.S.R. From: Otkrytiya, Izobret. 1989, (25), 101.

CODEN: URXXAF

DOCUMENT TYPE: Patent LANGUAGE: Russian

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| | | | | |
| SU 1491828 | A1 | 19890707 | SU 1987-4233784 | 19870422 |
| PRIORITY APPLN. INFO.: | | | SU 1987-4233784 | 19870422 |

AB The fiber strength and heat resistance are increased when the textile lubricant mixture contains 1.6-2.0% alkyd resin, in addition to dicyanoamide-formaldehyde resin 0.1-0.5,

dimethylsiloxane-polymethylsiloxane copolymer (as organosilicon compound) 1.0-3.0, silicic acid sol (as SiO2) 0.02-0.40%, and the balance water.

L1 ANSWER 31 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1986:602128 CAPLUS

DOCUMENT NUMBER: 105:202128

ORIGINAL REFERENCE NO.: 105:32435a,32438a

TITLE: Kinetics of ligand substitution in platinum(II)

complexes: a study on the concept of nucleophilic

discrimination

AUTHOR(S): Becker, M.; Elias, H.

CORPORATE SOURCE: Eduard-Zintl-Inst., Tech. Hochsch. Darmstadt,

Darmstadt, D-6100, Fed. Rep. Ger.

SOURCE: Inorganica Chimica Acta (1986), 116(1), 47-62

CODEN: ICHAA3; ISSN: 0020-1693

DOCUMENT TYPE: Journal LANGUAGE: English

AB [Pt(OND)X] (HOND = tridentate Schiff bases

N-(2-diethylaminoethyl) salicylaldimine (D = NEt2),

N-(2-ethylaminoethyl) salicylaldimine (D = NHEt) and

N-(3-thiapentyl) salicylaldimine (D = SEt); X = C1, NO3) were prepared and characterized. As shown by conductimetric studies [Pt(OND)NO3] aquate in MeOH to give [Pt(OND)(H2O)]+ and NO3-. Spectrophotometry (normal and stopped-flow) was used to study the kinetics of solvent substitution according to [Pt(OND)(H2O)] + + Y .dblharw. [Pt(OND)Y] + + H2O with avariety of neutral and ionic nucleophiles Y in MeOH at 20° and constant ionic strength, I = 0.2M (NaClO4). The substitution follows a 1-term rate law, v = kobs[Pt(OND)(H2O)+] = kY[Y][Pt(OND)(H2O)+]. The kY data obtained for 13 (D = NEt2) and 7 (D = NEt; SEt) different nucleophiles Y cannot be adequately correlated with their nPt0 values according to the well-known relationship log kY = snPt0 + log kS. The deviations are strongest for large and bulky nucleophiles such as Y =Ph3P, Bu3P, Ph3As, I- and for D = NEt2, from which it is concluded that steric crowding hinders the formation of the 5-coordinate transition state. The rate reducing steric cis-effect observed is of the order kY(D =NEt2):kY(D = NHEt):kY(D = SEt) = 1:35:63 for small nucleophiles Y and as large as 1:192:2640 for Y = Ph3P. The introduction of substituents X in the salicylaldehyde ring in ortho (X3), meta (X4) and para position (X5) to the phenolic O proves the existence of rather small electronic effects

(X4, X5) and much stronger steric effects of bulky substituents X3, neighboring the donor O. With the standard substrate trans-[Ptpy2Cl2] some new nPt0 values were determined, namely for N,N'-dimethylthiourea (nPt0 = 7.02), N,N'-diphenylthiourea (nPt0 = 7.19), N,N,N',N'-tetramethylthiourea (nPt0 = 6.05) and for the pseudo-halide dicyanoamide ion,

N(CN)2- (nPt0 = 3.05). The nPt0 value for the pseudo-halide tricyanomethanide ion, C(CN)3-, was estimated to be 3.03.

OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L1 ANSWER 32 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1985:504579 CAPLUS

DOCUMENT NUMBER: 103:104579

ORIGINAL REFERENCE NO.: 103:16737a,16740a
TITLE: Bisbiguanide compounds

INVENTOR(S): Eakin, Murdoch Allan; Edwards, Philip Neil; Large,

Michael Stewart

PATENT ASSIGNEE(S): Imperial Chemical Industries PLC, UK

SOURCE: Eur. Pat. Appl., 28 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

|] | PATENT NO. | KIND | DATE | APPLICATION NO. | | DATE |
|--------|-------------------|-------------|-------------|-----------------|---|----------|
| - | | | | | - | |
|] | EP 125092 | A1 | 19841114 | EP 1984-302928 | | 19840501 |
| | R: AT, BE, CH, | DE, FR, | GB, IT, LI, | LU, NL, SE | | |
| 1 | US 4670592 | A | 19870602 | US 1984-607702 | | 19840507 |
| | JP 59231062 | A | 19841225 | JP 1984-91181 | | 19840509 |
| PRIOR: | ITY APPLN. INFO.: | | | GB 1983-12663 | Α | 19830509 |
| OMITTO | COLLDON | 147 D D 7 H | 100 104570 | | | |

OTHER SOURCE(S): MARPAT 103:104579

AB About 30 title compds. R1R2NC(:NR6)NHC(:NH)NHCH2Q(CH2)3NHC(:NH)NHC(:NR7)NR 3R4 or their tautomers [R1-R4 = H, alkyl, alkoxyalkyl, cycloalkyl, cycloalkylalkyl, (un)substituted Ph or phenylalkyl; R1R2N or R3R4N = 1-azetidinyl, 1-pyrrolidinyl, piperidino, etc.; R6, R7 = H, alkyl; Q = substituted ethylene or ethylidene group CH2CHYR5, CH(CH2YR5) where Y = O, S and R5 = alkyl, cycloalkyl, cycloalkylalkyl, (un)substituted Ph or phenylalkyl], bactericides, fungicides, and contraceptives (no data), were prepared Thus, treating 2-hexenedinitrile with PhCH2SH in the presence of NaH, followed by reduction with BH3·Me2S gave

6-(benzylthio)hexane-1,6-diamine dihydrochloride. The last was treated with 1-butyl-3-cyanoguanidine in sulfolane to give

3-(benzylthio)hexane-1,6-bis(5-butylbiguanide) dihydrochloride.

OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD
(7 CITINGS)

L1 ANSWER 33 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1985:142236 CAPLUS

DOCUMENT NUMBER: 102:142236

ORIGINAL REFERENCE NO.: 102:22193a, 22196a

TITLE: New pseudohalomercurates(II)

AUTHOR(S): Koehler, Helmut; Skirl, Renate; Jeschke, Manuela CORPORATE SOURCE: Sekt. Chem., Martin-Luther-Univ., Halle/Saale,

DDR-4020, Ger. Dem. Rep.

SOURCE: Zeitschrift fuer Chemie (1984), 24(12), 444-5

CODEN: ZECEAL; ISSN: 0044-2402

DOCUMENT TYPE: Journal LANGUAGE: German

AB [Ph4Z]2[HgCl4] (Z = P, As) reacted with AgX (X = N(CN)2, C(CN)3) in CH3CN to give [Ph4Z]2[HgX4] that were characterized by IR spectra.

ANSWER 34 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN T.1

ACCESSION NUMBER: 1981:21236 CAPLUS

DOCUMENT NUMBER: 94:21236 ORIGINAL REFERENCE NO.: 94:3461a,3464a

Spectrographic study of some neodymium pseudohalide TITLE:

complexes

AUTHOR(S): Kapshuk, A. A.; Ternovaya, T. V.; Skopenko, V. V.;

Kostromina, N. A.

CORPORATE SOURCE: Kiev. Gos. Univ., Kiev, USSR

SOURCE: Ukrainskii Khimicheskii Zhurnal (Russian Edition)

(1980), 46(11), 1125-8

CODEN: UKZHAU; ISSN: 0041-6045

DOCUMENT TYPE: Journal LANGUAGE: Russian

Complexing of Nd3+ with C(CN)3- and N(CN)2- was studied

spectrophotometrically at 20° and ionic strength 0.16 or 0.8.

Stability consts. for the 1:1 complexes formed in MeOH are 1.1 \pm 0.1, 0.52 ± 0.02 for NdC(CN)32+ at ionic strengths 0.16, 0.8, resp., and

 1.35 ± 0.05 for NdN(CN)22+ at ionic strength 0.16.

ANSWER 35 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1977:177635 CAPLUS

DOCUMENT NUMBER: 86:177635

ORIGINAL REFERENCE NO.: 86:27819a,27822a

A comparative ab initio study of the dicyanomethanide, TITLE:

cyanonitromethanide, dicyanamide and cyanonitramide

anions

AUTHOR(S): Jensen, Harald; Klewe, Bernt; Tjelta, Egil

Dep. Chem., Univ. Oslo, Oslo, Norway CORPORATE SOURCE:

Acta Chemica Scandinavica, Series A: Physical and SOURCE:

Inorganic Chemistry (1977), A31(2), 151-4

CODEN: ACAPCT; ISSN: 0302-4377

DOCUMENT TYPE: Journal LANGUAGE: English

Results from geometry optimizations by use of ab initio methods and a double zeta basis set give results in good accordance with exptl. findings for these 4 systems. The agreement in the trends when comparing effects of substitution is excellent. Neither optimization with a minimal basis nor MINDO/3 calcns. reproduce geometries for systems like the present ones satisfactorily. The anion bond parameters are discussed in terms of qual.

bond concepts.

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

ANSWER 36 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

DOCUMENT NUMBER: 1975:454628 CAPLUS 83.54620

ORIGINAL REFERENCE NO.: 83:8591a,8594a

TITLE: Bactericidal, insecticidal, or fungicidal mixtures and

their incorporation into smoke

INVENTOR(S): Radulescu, Tudor

Laboratoire de Chimie et de Biologie "L.C.B", Fr. PATENT ASSIGNEE(S):

SOURCE: Ger. Offen., 13 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

KIND DATE APPLICATION NO. PATENT NO. DATE ____

| DE | 2439920 | A1 | 19750306 | DE | 1974-2439920 | | 19740820 |
|----------|-----------------|----|----------|----|--------------|---|----------|
| FR | 2302036 | A1 | 19760924 | FR | 1973-31007 | | 19730827 |
| FR | 2302036 | В1 | 19790126 | | | | |
| FR | 2260292 | A1 | 19750905 | FR | 1974-4811 | | 19740213 |
| GB | 1454235 | A | 19761103 | GB | 1974-11325 | | 19740314 |
| AU | 7472435 | A | 19760219 | ΑU | 1974-72435 | | 19740816 |
| US | 3956849 | A | 19760518 | US | 1974-498136 | | 19740816 |
| СН | 591808 | A5 | 19770930 | СН | 1974-11388 | | 19740820 |
| JP | 50070530 | A | 19750612 | JΡ | 1974-97579 | | 19740827 |
| JP | 57047886 | В | 19821013 | | | | |
| PRIORITY | Y APPLN. INFO.: | | | FR | 1973-31007 | Α | 19730827 |
| | | | | FR | 1974-4811 | Α | 19740213 |

AB After ignition, 10% SiO2 [7440-21-3] catalyzes exothermic reaction of a dicyanodiamide-NH4NO3 mixture, resulting in an effective smoke generation without addnl. fuel. The effect might be used for formulating smoke-generating pesticidal composition Thus, a mixture of 36% dicyanodiamide, 54% NH4NO3, and 10% SiO2 was converted into 80.5% smoke, after ignition.

OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD

L1 ANSWER 37 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1974:562793 CAPLUS

DOCUMENT NUMBER: 81:162793

ORIGINAL REFERENCE NO.: 81:25099a,25102a

TITLE: Cadmium pseudohalide and benzimidazole coordination

(2 CITINGS)

compounds

AUTHOR(S): Skopenko, V. V.; Zub, Yu. L.; Tryashin, A. S.;

Garnovskii, A. D.; Gilyanovskii, P. V.

CORPORATE SOURCE: Kiev. Gos. Univ. im. Shevchenko, Kiev, USSR

SOURCE: Ukrainskii Khimicheskii Zhurnal (Russian Edition)

(1974), 40(9), 920-3

CODEN: UKZHAU; ISSN: 0041-6045

DOCUMENT TYPE: Journal LANGUAGE: Russian

AB From MeOH solution, 1:2 from Cd thiocyanate, selenocyanate, and dicyanoamide complexes with benzimidazole and 2-methylbenzimidazole were precipitated With 1,2-dimethylbenzimidazole (I), Cd(NSCe)2 formed a 1:1 complex, the other 2 Cd compds. formed 1:2. The ir spectra indicate the presence of bridging CNS-, CNSe-, and N(CN)2-groups in the compds. involving I. The uv spectra differ only slightly from those of the ligands and the luminescence in the solid state is very weak.

L1 ANSWER 38 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1964:490031 CAPLUS

DOCUMENT NUMBER: 61:90031
ORIGINAL REFERENCE NO.: 61:15644a-b

TITLE: Transition metal compounds containing the

tricyanomethanide ion

AUTHOR(S): Enemark, J. H.; Holm, R. H.

CORPORATE SOURCE: Harvard Univ.

SOURCE: Inorganic Chemistry (Washington, DC, United States)

(1964), 3(11), 1516-21

CODEN: INOCAJ; ISSN: 0020-1669

DOCUMENT TYPE: Journal LANGUAGE: Unavailable

AB The phys. properties of 5 transition metal tricyanomethanide compds. of the type M|C(CN)3]2.xH2O (M = Mn, Fe, Co, Ni, Cu) were investigated in an attempt to deduce the coordination symmetry of the cations and the structure of the anion in these salts. Magnetic and ligand field spectral results are strongly suggestive of weak field, approx. octahedral coordination in each case. The infrared results indicate cation-anion interaction through N producing a site symmetry lower than the intrinsic

D3h symmetry of the free anion, but cannot be interpreted in terms of a significant distortion of the anion from planarity. A polymeric structure is proposed which is consistent with the spectral results and insoly. of these compds. The nonlinear structure of the dicyanoamide ion, N(CN)2-, is confirmed by Raman spectroscopy. The electronic structures of C(CN)3- and N(CN)2- were investigated by using the extended Hueckel theory.

OS.CITING REF COUNT: 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (11 CITINGS)

L1 ANSWER 39 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1919:14830 CAPLUS

DOCUMENT NUMBER: 13:14830

ORIGINAL REFERENCE NO.: 13:2950i,2951a-d

TITLE: Decomposition of cyanamide and dicyanodiamide in the

soil

AUTHOR(S): Cowie, G. A. CORPORATE SOURCE: Rothamsted

SOURCE: Expt. Sta. J. Agr. Sci. (1919), 9, 113-37

DOCUMENT TYPE: Journal LANGUAGE: Unavailable

Pot expts. were carried out with Rothamsted and Woburn soils to which had been added: CNNH2, dicyanodiamide, (NH4)2SO4, dried blood, and dicyanodiamide + each of the other fertilizers, the expts. covering a period of 35 to 162 days, and at intervals analyses were made for NO3 and NH3. Cyanamide used alone was found to change quant. to NO3 in about 80 days, the nitrification being almost parallel to that of (NH4)2SO4, although at first slightly slower, due probably to the fact that the CNNH2 was first changed to NH3. Dicyanodiamide alone remained practically unchanged, and when mixed with the other fertilizers it very greatly inhibited nitrification and caused the accumulation of large amts. of NH3. Mustard and barley grown in pots of soil similarly fertilized with CNNH2, dicyanodiamide, (NH4)2SO4, and CNNH2 + dicyanodiamide showed a growth corresponding almost exactly with the NO3 produced in the unplanted pots, except where dicyanodiamide had been added to CNNH2, the growth here being somewhat greater in proportion to the nitrates formed, due apparently to the direct absorption of NH3 by the plants on account of the scarcity of NO3. Dicyanodiamide applied alone and also mixed with CNNH2 was toxic to mustard and somewhat less so to barley, while when applied in very small amts. it had no effect upon the growth of rye. In no case did it affect germination. The addition of dicyanodiamide to the soil was not found to influence the number of bacteria developing upon gelatin plates. Field tests carried out with barley planted in a soil fertilized with 150 lbs. (NH4)2SO4 per acre or an equivalent amount of CNNH2, or CNNH2 + dicyanoamide gave results similar to the pot tests except that dicyanodiamide, while neutralizing the good effects of CNNH2 when applied in large quantities, was not toxic even when applied at the rate of 27 lbs. of N per acre.

L1 ANSWER 40 OF 40 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1906:153897 CAPLUS

DOCUMENT NUMBER: 0:153897

TITLE: Over the spontaneous formation of dicyanodiamide into

the calcium cyanoamide containing fertilizers.

[machine translation]

AUTHOR(S): Perotti, R.

SOURCE: Atti della Accademia Nazionale dei Lincei, Classe di

Scienze Fisiche, Matematiche e Naturali, Rendiconti

(1906), 15(5), 48-53

From: Chem. Zentr., 1906, I, 1467

CODEN: AANLAW

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

[Machine Translation of Descriptors]. As well known the lime nitrogen, if AB it is not particularly kept in dry air, loses NH3, in addition a part of the calcium cyanoamide changes into dicyanoamide. Thus a sample lime nitrogen contained 1904 14.6% CN2Ca in March - according to the method indicated by the author in former times(soluble C.)determines, by the way well worked satisfactorily -, in May 1904 13.3, in October 1904 9.35 and in October 1905 0.8-0.87% CN2Ca. By extraction with alcohol dicyanodiamide, C2H4N4, from water or alcohol thin boards or lamella, left itself melting point 205° from the lime nitrogen;, isolate, still by the compound the C2H4N4·AqNO3(see BEILSTEIN and GEUTHER, LIEBIGS Ann. 123. 241) one identified. By this transformation of CN2Ca analysis differences, like due to the investigation, more freshly explain and/or. stored samples to develop, the dicyandiamide with ammoniacal AgNO3 no precipitation gives will have to take the develop further evaluation of the lime nitrogen than fertilizers also on the possible presence and formation of dicyandiamide consideration, particularly the latter compound does not know.

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